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REPORT TO THE CONGRESS

UNITED STATES
GENERAL ACCOUNTING OFFICE

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Examination Of Financial
Statements Of The Tennessee
Valley Authority For Fiscal
Year 1975

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-114850

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on the examination of the Tennessee Valley Authority's financial statements for fiscal year 1975, pursuant to the Government Corporation Control Act (31 U.S.C. 851).

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of the Treasury; and the Chairman, Board of Directors, Tennessee Valley Authority.

A handwritten signature in dark ink, reading "James B. Atchley", is positioned above the printed title.

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
TVA	Tennessee Valley Authority

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

EXAMINATION OF FINANCIAL
STATEMENTS OF THE TENNESSEE
VALLEY AUTHORITY
FOR FISCAL YEAR 1975

D I G E S T

In GAO's opinion the financial statements included in this report present fairly the Tennessee Valley Authority's financial position at June 30, 1975 and 1974, and the results of its operations and the changes in the financial position of its programs for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

The Authority's operating revenue from the sale of electric energy increased \$293 million, or 33 percent, in 1975 over 1974, but its net income decreased \$2.8 million, or 3 percent. (See p. 3.)

To offset increasing power system cost, the Authority adjusted power rates upward in January 1975 to increase power revenue by \$58.9 million, or about 10 percent. Fuel and purchased power cost the Authority \$241 million, or 69 percent, more in fiscal year 1975 than in 1974 and prompted adjustments to charges for electric power in each of 11 months of fiscal year 1975. (See p. 4.)

The Authority paid the Treasury \$71.4 million as a return on the Government's appropriation investment of \$1.015 billion in power facilities at July 1, 1974, and also paid \$20 million of power proceeds to the Treasury as a partial repayment of the investment. (See p. 7.)

A scarcity of generating fuels and their increasing cost were major obstacles to the Authority's goal of providing a continuous supply of low-cost electricity. After a serious shortage of coal in the fall of 1974, the Authority was able to rapidly replenish its coal stockpiles, but the prices it paid for coal remained relatively high. (See p. 9.)

By 1984 the Authority plans to increase its generating capacity by 21.2 million kilowatts, 91 percent of which will be provided by seven nuclear plants. Forty-five percent of its capacity will then be in nuclear-powered generating plants, compared to 9 percent at June 30, 1975. (See p. 13.)

The Authority's programs for developing the resources of tributary areas in fiscal year 1975 included: solid waste disposal; collection and recycling of abandoned automobiles; countywide fire protection; and local applications of computer techniques. The Authority also demonstrated an energy conservation project involving mass transit and continued the operation townlift program. (See pp. 23 and 24.)

BEST DOCUMENT AVAILABLE

CHAPTER 1

INTRODUCTION

The Tennessee Valley Authority (TVA) is an independent Government corporation created by the Tennessee Valley Authority Act of May 18, 1933 (48 Stat. 58, 16 U.S.C. 831), to improve the public usefulness of the Tennessee River and to help develop other resources in the Tennessee Valley and adjoining areas. TVA generates, transmits, and sells electric power; helps control floods; promotes navigation on the Tennessee River; develops fertilizers and munitions; and participates in the development of recreational, agricultural, and other resources in the Tennessee Valley.

TVA activities are directed by its Board of Directors. Members of the Board are appointed by the President, with the advice and consent of the Senate, to serve 9-year overlapping terms. The President also designates one member as Chairman. As of June 30, 1975, the Board members and the expiration dates of their terms were:

Aubrey J. Wagner, Chairman	May 18, 1978
William L. Jenkins	May 18, 1981

Mr. Don McBride served as a member of the Board until his term expired on May 18, 1975. The position was still vacant as of November 24, 1975.

Mr. Lynn Seeber, TVA's General Manager, is responsible to the Board for carrying out its programs, policies, and decisions.

In accordance with the Government Corporation Control Act (31 U.S.C. 851), this report includes information and comments to keep the Congress informed of TVA's financial condition and operations. During fiscal year 1975, at the request of a Member of the Congress, we also furnished two reports to the Congress on TVA's power operations. One report (B-114850, Nov. 4, 1974) discussed a coal shortage and possible curtailment of electric power service experienced by TVA in the latter part of 1974. The other report (RED-75-368, Apr. 29, 1975) provided information on aspects of TVA's power operations.

Information on TVA's activities during fiscal year 1975 can also be found in its report to the President and to the Congress, required each December by the TVA Act.

CHAPTER 2

POWER

Part of its resource development program, TVA supplies power at wholesale prices to 160 municipal and cooperative electric systems which distribute the power to more than 2.5 million customers in parts of seven States. TVA also directly serves 50 industrial customers with large or unusual power requirements and several Federal atomic, aerospace, and military installations.

Financially, TVA's power program is separate from its other programs. The power program is self-supporting, and part of the net income earned under the program is used to pay a return on appropriated funds invested in TVA's power facilities and to repay the investment. TVA's power accounts are kept in accordance with the uniform system prescribed for electric utilities by the Federal Power Commission.

OPERATING RESULTS

Power program assets increased by \$1.068 billion during fiscal year 1975 and totaled \$5.877 billion at June 30, 1975, or about 89 percent of TVA's total assets of \$6.620 billion. A summary of TVA's power operations results for fiscal years 1975 and 1974 follows.

	<u>1975</u>	<u>1974</u>	<u>Percent increase or decrease (-)</u>
	(000 omitted)		
Operating revenues:			
Sales of electric energy	\$1,155,567	\$863,643	34
Rents	<u>20,724</u>	<u>19,983</u>	4
Total operating revenues	1,176,291	883,626	33
Operating expenses	<u>961,138</u>	<u>679,499</u>	41
Operating income	215,153	204,127	5
Other income and deductions	<u>117,184</u>	<u>85,411</u>	37
Income before interest charges	332,337	289,538	15
Interest charges	<u>228,976</u>	<u>183,384</u>	25
Net income	103,361	106,154	-3
Payment of return on appropriation investment	<u>71,372</u>	<u>63,422</u>	13
Increase in retained earnings	<u>\$ 31,989</u>	<u>\$ 42,732</u>	-25

Exhibit II presents the details of the power program's operating results.

Operating revenues were \$293 million (33 percent) higher in fiscal year 1975 than in 1974; however, net income was about \$2.8 million (3 percent) lower. After the required payment of \$71.4 million to the Treasury as a return on appropriation investment, \$32 million remained as a reinvestment of earnings in the power program--approximately 25 percent less than that of the preceding year.

The \$293 million increase in operating revenue resulted mainly from adjustments of power rates rather than larger electric energy sales. The volume of electricity sold by TVA increased by less than one-half of 1 percent in fiscal year 1975, compared to an average annual increase of almost 5 percent over the 10 previous years. The small increase in fiscal year 1975 is attributed to unfavorable business conditions, widespread energy conservation by consumers, the effects of higher electric rates, and a temporary reduction in energy usage by the Energy Research and Development Administration.

Operating expenses increased by \$282 million, or 41 percent, in fiscal year 1975 over the prior fiscal year. Eighty-six percent of this increase resulted from higher fuel costs, and larger purchases of high-cost energy from other electric utilities. TVA bought large amounts of electricity from other utilities primarily to conserve a dwindling supply of coal in the fall of 1974 and to replace power lost as a result of a shutdown of both units of the Browns Ferry Nuclear Plant in March 1975.

Interest charges increased by \$45.6 million, or 25 percent, as a result of the continued growth of TVA's debt coupled with higher interest rates.

TVA's payment to the Treasury as a return on the Government's appropriation investment increased by about \$8 million, or 13 percent, because of a higher interest rate. In 1976, however, the payment will be \$6.3 million less than it was in 1975 primarily because of interest rate reduction.

POWER RATES

The TVA Act requires TVA to sell power at rates as low as possible but high enough to maintain the financial soundness of the power program. TVA and a committee representing distributors review current and prospective power revenues and expenses quarterly. On the basis of the review, the Board of

Director determines whether a rate adjustment is needed. In addition, in fiscal year 1975 the Board approved a policy of adjusting power rates monthly to reflect the changes in the actual cost of fuel and purchased power.

Quarterly rate adjustment

After three quarterly rate reviews for fiscal year 1975, the Board determined that no adjustment of base power rates was needed. Based on the quarterly review in December 1974, however, the Board determined that additional electric revenues were needed to offset increasing power system costs. Therefore the Board adjusted power rates upward, effective with meter readings on or after January 2, 1975, to increase power revenues by an estimated \$58.9 million, or about 10 percent. The quarterly adjustment added \$1.10 to monthly residential power bills for each 1,000 kilowatt-hours of electricity used, based on the most frequently applied rate schedule for residential customers.

Monthly fuel and purchased power adjustments

Because of large and unpredictable variations in fuel costs, in July 1974 the Board approved an addendum to rate schedules to permit the increases or decreases in the actual cost of fuel burned at TVA's generating plants to be included in electric power billings each month. As a result of a rate review in December 1974, the Board approved having the increase or decrease in the actual cost of purchased power, as well as the cost of fuel burned, included in monthly power charges. In fiscal year 1975 fuel and purchased power costs accounted for \$590.7 million, or 62 percent, of TVA's total operating expenses, and these costs increased \$241 million, or 69 percent, over the preceding year. During the year TVA recorded revenues of \$158.6 million as a result of adjustments for fuel and purchased power included in power billings through June 30, 1975.

In calculating the monthly adjustments, TVA determines at the end of each month the amount of the increase or decrease in the actual cost of fuel and purchased power. A formula is applied to compute the amount of the adjustment to be included in power billings, and TVA publishes the adjustment about the middle of the month preceding each billing.

In June 1975, for example, TVA calculated the increases in the cost of fuel and purchased power to be \$32.1 million and \$16.5 million, respectively. Based on the \$48.6 million increase in these costs and the actual

kilowatt-hours of electricity sold in June 1975, TVA determined the adjustment applicable to August 1975 billings.

Under the procedure followed by TVA, a period averaging about 2 months elapses from the time the fuel and purchased power costs are recorded and the time the related billings are made and the revenue is recorded. Because of this 2-month lag, an increase in fuel cost totaling \$3.5 million recorded in fiscal year 1974 was not included in power billings until August 1974. Increases in the cost of fuel and purchased power totaling \$88.8 million, recorded in fiscal year 1975, were not included in power billings until July and August 1975.

TVA adjusted power rates for changes in the cost of fuel and purchased power in each month since August 1974. A table summarizing the monthly adjustments and the January 1975 quarterly adjustment, based on the distributors' monthly billings for a residential customer using 1,000 kilowatt-hours of electricity and the most frequently applied rate schedule, follows.

	<u>Cumulative adjustment</u>	<u>Monthly billing</u>	<u>Cumulative percentage increase</u>
Base rate (including quarterly adjustments to July 1, 1974)	\$ -	\$17.18	-
Fuel adjustments:			
July 1974	-	17.18	-
August	.46	17.64	3
September	.99	18.17	6
October	.99	18.17	6
November	.76	17.94	4
December	.62	17.80	4
Quarterly adjustment-- January 2, 1975	1.10	18.28	-
Fuel and purchased power adjustments:			
January 1975	2.23	20.51	19
February	2.24	20.52	19
March	2.09	20.37	19
April	2.55	20.83	21
May	3.08	21.36	24
June	3.93	22.21	29
July	5.91	24.19	41
August	6.60	24.88	45

As can be seen by the above table, higher fuel and purchased power costs in May and June 1975 resulted in upward adjustments to power billings of \$1.98 per 1,000 kilowatt-hours in July 1975 and \$0.69 per 1,000 kilowatt-hours in August 1975. These two adjustments brought the cumulative fuel adjustment since August 1974 to \$6.60 per 1,000 kilowatt-hours. The higher cost in these 2 months resulted primarily from price adjustments under TVA's long-term contracts and because its two largest generating plants (Browns Ferry Nuclear Plant and Cumberland Steam Plant) were out of service for repairs. In September 1975, residential power billings were adjusted upward by \$1.22, and in October and November 1975 billings were adjusted downward by \$0.80 and \$1.11 per 1,000 kilowatt-hours.

PROPRIETARY CAPITAL AND PAYMENTS
TO THE TREASURY

The Government's total proprietary capital in TVA was \$2.603 billion at June 30, 1975, and \$1.894 billion, or 73 percent, of this amount was in the power program. Changes in proprietary capital during fiscal year 1975 are shown in the following table.

	Change		
	<u>Power</u>	<u>Nonpower</u>	<u>Total</u>
	————(000 omitted)————		
Appropriation investment:			
Congressional appropriations	\$ 123	\$ 77,277	\$ 77,400
Transfers of property from other Federal agencies	<u>429</u>	<u>338</u>	<u>767</u>
	552	77,615	78,167
Less repayments to general fund of the Treasury	<u>-20,000</u>	<u>-27</u>	<u>-20,027</u>
Appropriation investment	-19,448	77,588	58,140
Net income of power program	103,360	-	103,360
Net expense of nonpower programs	-	-35,208	-35,208
Less payment of return on appropriation investment	<u>-71,372</u>	<u>-</u>	<u>-71,372</u>
Net increase in proprie- tary capital	<u>\$ 12,540</u>	<u>\$ 42,380</u>	<u>\$ 54,920</u>

Section 15d of the TVA Act requires the corporation to pay to the Treasury each year, beginning with fiscal year 1961, a return on the appropriation investment in power facilities. The required payment is based on the average interest rate payable by the Treasury on its total marketable public obligations at the beginning of the fiscal year. The rate is applied to the unrepaid appropriation investment on that date. In fiscal year 1975 the payment of return on the Government's appropriation investment of \$1.015 billion at July 1, 1974, was \$71.4 million, which brought total return payments since 1961 to \$757.8 million.

Section 15d also requires a repayment of the appropriation investment in power facilities beginning in fiscal year 1961. The required repayments are: \$10 million annually for 1961-65, \$15 million annually for 1966-70, and \$20 million every year thereafter until \$1 billion has been repaid. Under specified conditions the Board may defer payments for not more than 2 years, but the Board has not exercised that option. TVA's repayment of \$20 million in fiscal year 1975 brought the cumulative payments under this provision to \$225 million. At this rate of repayment, TVA will have repaid the required \$1 billion in the year 2014. Under legislation in effect before the 1961 repayment provision, TVA had paid \$185 million of power proceeds to the Treasury.

Section 26 of the act provides for annual payments to the Treasury of any power or nonpower proceeds not needed for the operation of dams and reservoirs, the operation of the power program, or the manufacture and distribution of fertilizers. TVA had paid \$41.7 million from nonpower proceeds under this provision through June 30, 1975.

In fiscal year 1976 TVA will be required to pay the Treasury from power proceeds \$65.1 million as a return on the \$995.8 million unpaid appropriation investment in power facilities as of July 1, 1975, (based on an average interest rate of 6.533 percent being paid by the Treasury on its total marketable public obligations) and \$20 million as a repayment of that investment.

BORROWING AUTHORITY

TVA is authorized, under section 15d of the act, to issue and sell bonds, notes, and other evidences of indebtedness up to \$5 billion outstanding at any one time to help finance its power program. Section 15d states that the time of issuance and the maximum interest rates to be borne by the obligations are subject to approval by the Secretary of the Treasury, who is authorized to purchase TVA interim obligations up to \$150 million

outstanding at any one time. Debt service on these obligations is payable solely from TVA's net power proceeds and has precedence over repayments of the appropriation investment and payments of a return on investment to the Treasury.

Outstanding notes and bonds totaled \$3.660 billion at June 30, 1975, an increase of \$865 million, or 31 percent, over the June 30, 1974, amount. A bill (H.R. 9472) has been introduced in the Congress to amend section 15d of the TVA Act which, if passed, would increase from \$5 billion to \$15 billion the amount of power revenue bonds that TVA is authorized to have outstanding.

Section 3.4 of the Basic Tennessee Valley Authority Power Bond Resolution adopted October 6, 1960, prohibits any increase in outstanding bonds unless a power income test specified in the resolution is met. To meet the test, net power income for the last 5 fiscal years must have aggregated at least:

\$200 million

plus

\$15 million for each one-quarter of 1 percent (or major fraction thereof) by which the interest on Treasury borrowings has averaged more than 3.25 percent during the 5 years.

TVA met the minimum net income requirement for the 5 years ended June 30, 1974, and sold \$800 million in bonds in four issues, resulting in a net increase of \$750 million in outstanding bonds during fiscal year 1975. TVA's net power income for these 5 years aggregated \$518 million, and the minimum net power income requirement for that period was \$335 million.

Short-term notes payable to the Federal Financing Bank totaled \$635 million at June 30, 1975, as compared to \$570 million payable to the public at June 30, 1974. Short-term notes payable to the Treasury at June 30, 1975, totaled \$150 million, an increase of \$50 million since June 30, 1974.

All bonds and notes issued by TVA during the year are payable to the Federal Financing Bank and the Treasury.

FUEL SUPPLY AND COST

TVA generated a total of 102.6 billion kilowatt-hours of electricity during fiscal year 1975. Expenses incurred in producing the electricity totaled \$750.8 million of which \$455.4 million, or about 61 percent, represents the cost of fuel. A table showing the kilowatt-hours of electricity generated by each type of powerplant during the year and the cost of fuel associated with each follows.

	<u>Generation</u>		<u>Fuel cost</u>	
	<u>Kilowatt-hours</u>	<u>Percent</u>	<u>Total</u>	<u>Average per kilowatt-hour</u>
	(billions)		(millions)	(mills)
Coal-fired				
steam	71.7	69.9	\$435.2	6.069
Hydroelectric	23.0	22.4	-	-
Nuclear	7.4	7.2	7.1	1.525
Gas turbine	<u>0.5</u>	<u>0.5</u>	<u>13.1</u>	25.879
Total system	<u>102.6</u>	<u>100.0</u>	<u>\$455.4</u>	

A scarcity of generating fuels and their increasing cost pose a major problem to TVA in its effort to provide a continuous supply of low-cost electricity. In fiscal year 1975 TVA steamplants burned 33.1 million tons of coal which, because of a shortage of coal, was 4.3 million tons less than that burned in the previous year. TVA estimates that its steamplants will require at least 40 million tons of coal a year well into the next decade.

By 1984 TVA expects to also need about 9 million pounds of uranium concentrates each year to operate 17 nuclear units that are to be in commercial operation by that time.

Coal

TVA's policy is that, when the coal stockpile at any steamplant is insufficient for 60 days' continuous operation, an emergency exists and contracts may be made by negotiation in lieu of advertising. TVA attempts to maintain a 60- to 90-day reserve stockpile at its steamplants in case of interruptions in coal production or transportation.

As a result of a widespread shortage of coal, the poor delivery performance of some of TVA's coal suppliers, and a coal miners' strike in November and December 1974, TVA's stockpile of coal dropped from a 67-day supply on

July 1, 1974, to a 38-day supply on December 31, 1974. As a result, TVA announced that it might require electric power curtailments during the 1974-75 winter season because of its decreasing coal stockpiles and the difficulty in obtaining additional coal supplies. TVA requested its power customers to voluntarily reduce their use of electricity by 20 percent to conserve coal and prepared a mandatory emergency energy reduction program to be implemented if required. Details on TVA's coal shortage are contained in our report (B-114850, Nov. 4, 1974) prepared at the request of a Member of Congress.

After the coal miners' strike ended in December 1974, TVA rapidly rebuilt its coal inventory through new coal purchases, improved coal deliveries, favorable conditions for hydroelectric generation, and a high output at that time of two nuclear units at Browns Ferry Nuclear Plant. By June 30, 1975, TVA's coal inventory had increased to a 108-day supply, as shown in the chart on the following page.

As a result, TVA did not have to implement the energy reduction program. On April 1, 1975, the Board suspended the emergency authority to purchase coal by negotiation and TVA resumed advertised purchases.

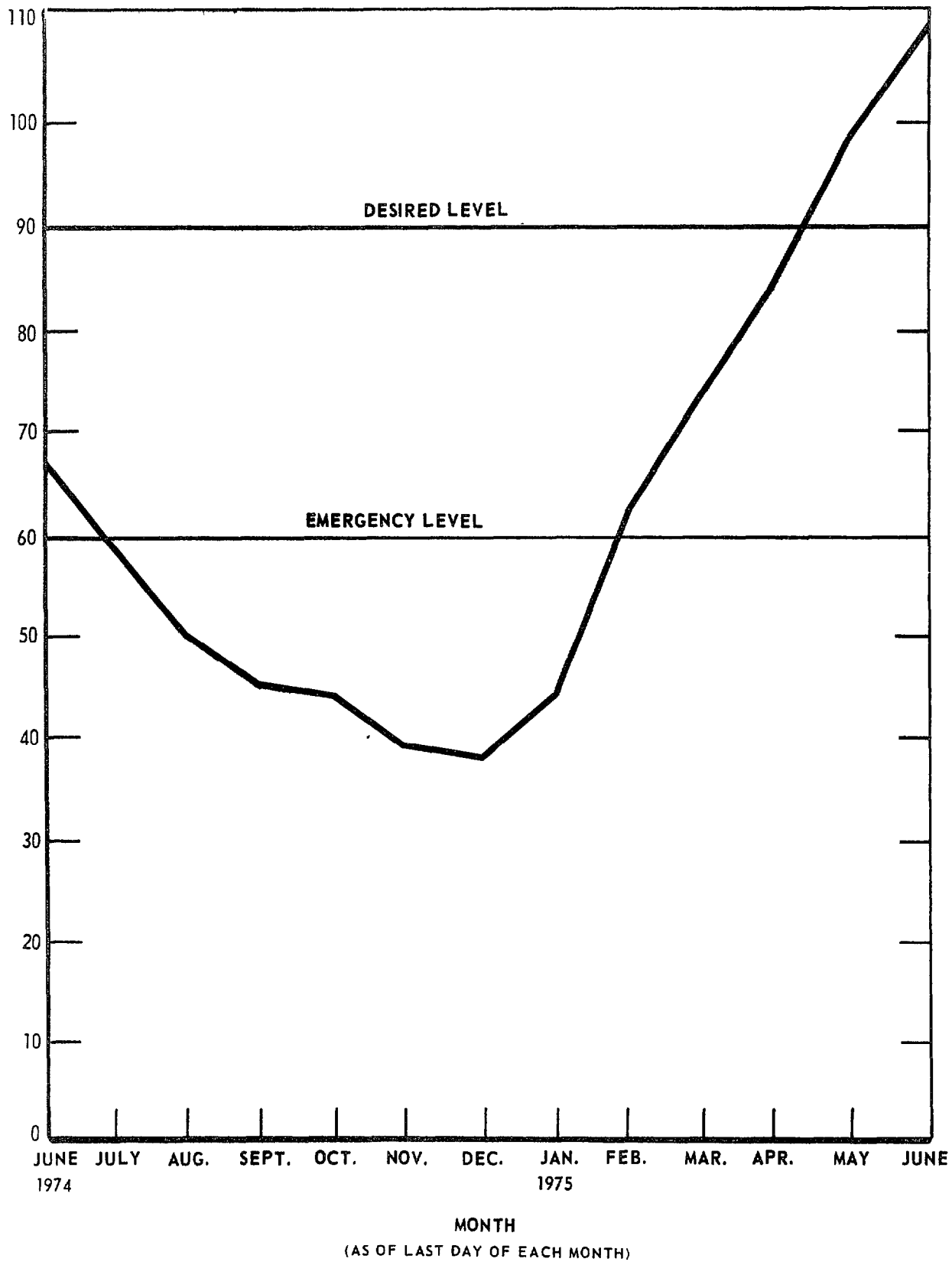
Although the coal shortage ended during the latter half of fiscal year 1975, TVA continued to pay high prices for coal. For example, the average cost of coal delivered to TVA's steamplants increased from \$9.59 a ton in July 1974, to \$14.70 in January 1975, to \$17.51 at June 1975. Overall, the average delivered cost was \$14.71 a ton during fiscal year 1975--a 72-percent increase from 1974 and a 97-percent increase from 1973.

To protect against future coal shortages, TVA is (1) acquiring additional coal reserves, (2) carrying higher levels of coal inventory, and (3) considering the feasibility of acquiring coal transportation equipment. TVA is also continuing its policy of awarding long-term contracts for coal.

Uranium

By 1984 TVA's nuclear system is to include 7 nuclear plants with a total of 17 units, having a generating capacity of 21.6 million kilowatts or about 45 percent of TVA's power supply. Through 1990 the 17 units will require a total of 116 million pounds of uranium concentrate.

DAY'S SUPPLY
AT EXPECTED BURN RATE)



TVA has made purchase commitments to meet most of its estimated uranium requirements through 1980. To insure a supply of uranium beyond 1980, TVA has 13 long-term contracts providing for the exploration and mining of about 600,000 acres in the Midwest. TVA also owns or controls two uranium mills to be operated by independent contractors. It also has long-term purchase commitments for uranium through 1990. TVA's requirements for uranium concentrates and the supply to be available from inventory or purchase commitments are shown below.

<u>Period</u>	<u>Projected</u>	<u>Inventory and</u>	<u>Shortfall</u>	
	<u>requirement</u>	<u>purchase commitment</u>	<u>Pounds</u>	<u>Percent</u>
<hr/> (millions of pounds) <hr/>				
1976-80	23.6	23.5	0.1	0.4
1981-85	47.6	13.5	34.1	71.6
1986-90	<u>45.1</u>	<u>7.5</u>	<u>37.6</u>	83.4
Total	<u>116.3</u>	<u>44.5</u>	<u>71.8</u>	61.7

TVA expects the shortfall of 71.8 million pounds to be met primarily through uranium production under its contracts and, after 1984, through recycling uranium.

On September 8, 1975, one of the TVA nuclear fuel contractors, Westinghouse Electric Corporation, announced that it could not fully perform in accordance with its uranium supply contracts. Westinghouse advised that the uranium it had available would be allocated among its present customers and among potential customers with whom it had been negotiating. On October 20, 1975, TVA instituted a suit in the U.S. District Court for the Eastern District of Tennessee to have its two contracts with Westinghouse enforced and to prevent Westinghouse from disposing of the uranium covered by the contracts.

CHAPTER 3

CONSTRUCTION

At June 30, 1975, the recorded cost of TVA's property, plant, and equipment was \$5.995 billion, an increase of \$849 million from June 30, 1974. The balances at June 30, 1975, and the increases from the end of the prior fiscal year follow.

	<u>Balance</u> <u>June 30, 1975</u>	<u>Increase</u>
	(000 omitted)	
Completed plant, net	\$3,990,011	\$609,578
Construction and investigations in progress	1,835,750	200,000
Nuclear fuel, net	<u>169,077</u>	<u>39,134</u>
Total	<u>\$5,994,838</u>	<u>\$848,712</u>

Eighty-nine percent of the nearly \$6 billion of fixed property represents the book value of TVA's power program assets. Ninety-three percent of the cost of construction and investigations underway at June 30, 1975, represents future power facilities.

TVA's installed power generating capacity totaled 26.7 million kilowatts at June 30, 1975, an increase of 3.4 million kilowatts, or about 15 percent, over the June 30, 1974, capacity. An increase of 2.3 million kilowatts resulted from TVA's acceptance for commercial operation of one unit of the Browns Ferry Nuclear Plant on August 1, 1974, and a second unit on March 1, 1975. TVA also accepted 16 combustion turbine units, having a generating capacity of 1.1 million kilowatts, at the Johnsonville steamplant on June 1, 1975.

On March 22, 1975, as a result of a fire in electrical control cables, both units of the Browns Ferry plant, were shut down. TVA expects to have the two units in service in early 1976.

To meet projected increases in power demands, TVA plans to expand its power supply from 26.7 to 47.9 million kilowatts by June 30, 1984. Of the increase in capacity, 19.3 million kilowatts, or 91 percent, will be additional nuclear generating capacity. By 1984, 45 percent of TVA's generating capacity will be in nuclear-powered generating plants, compared to 9 percent at June 30, 1975. Approximately 1.9 million kilowatts of peaking capacity--units

normally used only during periods of highest power demands-- is being added through a pumped-storage hydroelectric plant and additional gas turbines. A table summarizing capacity, schedule, and cost data for the major additions is shown on the next page.

Four turbine units at the Gallatin steamplant were essentially completed at June 30, 1975.

Commercial operation of unit 3 at Browns Ferry Nuclear Plant, near Athens, Alabama, was originally scheduled to begin in October 1972. However, due to design revisions, scope modifications, and delays in repairing damage caused by fire to units 1 and 2, the estimated commercial operation has been revised to April 1976. Commercial operation dates are also being rescheduled for the nuclear units at Sequoyah, Bellefonte, and Hartsville plants. In fiscal year 1975 estimated completion dates of the nuclear units under construction were extended from 3 to 12 months. The major reasons for delays were late delivery of equipment and material as well as problems with manpower scheduling.

Commercial operation of the four units of the Raccoon Mountain plant will be delayed by 2 years because of metallurgical problems in the turbine stay rings. The turbine manufacturer will replace the stay rings, and commercial operation was rescheduled for 1978.

In fiscal year 1975 TVA's construction expenditures under the power program totaled \$944 million. The estimated cost to complete power projects is \$9.650 billion.

<u>Plant</u>	Total estimated plant cost (millions)	Unit	Scheduled commercial service dates			
			<u>Nameplate capacity</u> (kilowatts)	<u>Original</u>	<u>Fiscal year 1975</u>	
Gallatin gas turbine	\$ 37	1-4	325,200	June 1975	July	1975
Browns Ferry nuclear	a/ 815	3	1,152,000	Oct. 1972	Apr.	1976
Sequoyah nuclear	675	1	2,441,160	Oct. 1973	Sept.	1977
		2		Apr. 1974	May	1978
Raccoon Mountain pumped storage	240	1	1,530,000	Sept. 1974	Feb.	1978
		2		Dec. 1974	Apr.	1978
		3		Mar. 1975	June	1978
		4		June 1975	Aug.	1978
Watts Bar nuclear	805	1	2,539,800	Oct. 1976	Nov.	1978
		2		Apr. 1977	Aug.	1979
Bellefonte nuclear	1,000	1	2,664,000	July 1977*	June	1980
		2		Apr. 1978	Mar.	1981
Proposed Hartsville nuclear	2,500	1	5,148,000	Apr. 1979	Dec.	1981
		2		Apr. 1980	Dec.	1982
		3		Oct. 1979	June	1982
		4		Oct. 1980	June	1983
Proposed additional nuclear (note b)	3,500	1-4	5,388,000	1982 - 84	1983 - 84	
Total	<u>\$9,572</u>		<u>21,188,160</u>			

a/Includes the cost of units 1, 2, and 3 because no breakout of the cost for unit 3 is available. Other data presented is for unit 3 only.

b/Preliminary data based on one plant at an Eastern site and one plant at a Western site, each plant having two nuclear units.

CHAPTER 4

GENERAL RESOURCE DEVELOPMENT

TVA conducts a broad range of activities to bring about the unified and comprehensive development of resources in the Tennessee Valley and adjacent areas. TVA combines its experience and techniques with that of State and local governments, developmental organizations, and citizen groups to assist in planning the development of local resources to meet specific social and economic needs.

As a part of its general resource development efforts, TVA carries out a tributary area development program through which it intensifies and tailors its developmental efforts to fit specific needs of local areas. An Office of Tributary Area Development evaluates the resource development potential in a locality and conducts demonstrations and local assistance programs aimed at achieving the locality's development potential. The Office coordinates the activities of 28 TVA offices and divisions, about 40 tributary area organizations, and numerous individuals. In 1975 there were about 1,600 resource development projects underway throughout the Tennessee Valley region. Forty-seven persons were assigned to the Office of Tributary Area Development at June 30, 1975, and its operating costs totaled about \$2 million in fiscal year 1975.

Programs carried out directly by the Office of Tributary Area Development included: solid waste management, collection and recycling of abandoned automobiles, country wide fire protection, and local applications of computer techniques. TVA also demonstrated an energy conservation project involving mass transit and continued the operation townlift program.

SOLID WASTE MANAGEMENT

TVA began assisting local governments in planning and implementing refuse collection systems as well as siting and designing sanitary landfills in 1969. The purpose of the program is to prevent indiscriminate dumping of refuse and to help rural communities comply with increasingly stringent solid waste disposal requirements.

At the request of local governments, TVA prepares feasibility studies which include the design of collection routes; selection of bulk container locations; equipment specifications; and cost estimates for the purchase, operation, and maintenance of equipment. TVA normally recommends that bulk containers be strategically placed

throughout a county and that refuse be collected and transported weekly to a centrally located sanitary landfill. After completion of a feasibility study, TVA continues to work with the local government in implementing a waste collection system. TVA also works with other Federal agencies, State and local health departments, and development districts to coordinate administrative and grant or loan agreements.

TVA provides technical assistance to local governments for sanitary landfills including (1) feasibility studies for proposed landfill sites, (2) landfill designs and construction plans, (3) on-the-job training for equipment operators, and (4) assistance in closing substandard disposal sites.

As of June 1975 TVA had completed 41 projects for refuse collection systems, 14 projects were underway, and 33 requests for assistance were pending. TVA had also assisted in 56 solid waste disposal projects, including sanitary landfills and dump closings, and 20 additional projects were in process. Forty requests for TVA assistance in establishing sanitary landfills were pending. The total cost of assisting local governments in solid waste management projects was about \$129,000 in fiscal year 1975.

COLLECTION AND RECYCLING OF JUNK CARS

To assist in collecting and recycling of abandoned vehicles, TVA began a demonstration program in junk car removal in 1970. At the end of fiscal year 1975, TVA terminated the program. More than 42,000 junk cars had been collected under TVA-sponsored projects. Total cost for the 5-year program was \$152,000.

Because of high transportation cost, it is not economically feasible for private firms to collect junk cars in sparsely populated areas. In response to this problem, TVA developed an inexpensive method of transporting the vehicles to a central location. After about 200 junk cars are accumulated, it becomes feasible for a private firm to bring a portable crusher to the site. The crushed vehicles are then transported to a shredding facility. Metal balls produced by the shredder are fed into an electric-arc steel furnace and recycled into new steel products.

After designing an inexpensive retrieval vehicle, TVA began assisting rural counties in organizing local

collection programs, identifying vehicle concentration sites, and contracting with crusher operators for disposing of junk cars. To stimulate local interest TVA conducted demonstrations throughout the Tennessee Valley. Local governments leased TVA's retrieval equipment, provided local funds for operating and maintaining the equipment, and obtained title releases for abandoned vehicles. TVA conducted 60 such demonstrations ranging in length from 10 weeks to 6 months.

In response to requests from outside the Tennessee Valley, TVA published a 24-page pamphlet describing junk car recycling, planning and organizing a collection and disposal program, and equipment needs and capabilities. TVA received over 900 inquiries about the program from all 50 States, the Virgin Islands, Canada, and Australia. Through a cooperative agreement with Philadelphia, Pennsylvania, TVA also demonstrated that its vehicle retrieval methods would be effective in urban as well as rural areas.

RURAL FIRE PROTECTION

Fire protection is generally not available in rural areas because of problems associated with firefighting in those areas. Through a rural fire protection program, TVA demonstrates how rural counties can operate an effective fire protection system at relatively low cost. TVA also provides assistance to counties in organizing and operating rural fire departments tailored to the special needs of rural areas.

TVA assistance is available to counties throughout the Tennessee Valley. After receiving a request for assistance, TVA studies the county by examining maps of the area and driving the major roads of the county. TVA prepares a system design and operation plan for presentation to the county court. After the plan is adopted and local funds are available, TVA provides technical assistance in fabricating the firefighting and related equipment and in training local volunteers.

Under TVA's system design a county is divided into several fire districts based on population distribution, existing road network, and physiographic features. Seven or more volunteer firemen are required in each district and firefighting equipment is strategically placed throughout the district. Each fireman is assigned a pocket radio receiver and, when responding to an alarm, designated firemen go directly to the fire and others bring the heavy equipment from the fire station.

To provide a supply of water for rural firefighting, TVA designed and constructed mobile firefighting equipment geared to the needs of rural firefighting. The equipment includes an attack tanker, a quick-response minipumper, a pump and reel truck for delivering water up to 1 mile, a pocket-pager device, and firefighting kit for each volunteer fireman.

During fiscal year 1975 TVA provided fire protection assistance to 14 rural counties. Capital outlay ranged from about \$60,000 to \$120,000. In all but one county, TVA's cost was limited to salary and related expenses of its own employees. TVA provided one county with firefighting equipment costing about \$12,000 for use in the initial demonstration.

COMPUTER ASSISTANCE

TVA provides technical assistance to communities in organizing and developing the use of computer services. Among the services offered by TVA are computer feasibility studies, computer cooperatives, and development of software packages.

At the request of local governments in the Tennessee Valley, TVA evaluates their data processing needs, determines the feasibility of acquiring computer equipment, and identifies the processing applications to be computerized. TVA also provides technical assistance to local governments in obtaining computer equipment.

Computer cooperatives are sometimes formed to permit groups of local governments to share computer time with an organization that has a computer system and available processing capacity. TVA provides technical assistance in organizing the cooperative, identifying for each participant the functions that are to be computerized, and defining the financial responsibilities of each participant. As the cooperative develops, TVA offers further assistance in developing computer software packages and provides other services as requested. A computerized general ledger and budgetary accounting system designed by TVA is available to those smaller communities unable to develop their own system. TVA also provides computerized mapping services to local governments to improve efficiency through more accurate methods of siting public schools, routing school buses, and planning other municipal services.

In fiscal year 1975, 11 local governments adopted the general ledger and budgetary system designed by TVA. TVA estimates that 40 to 50 communities will be using the TVA-designed system by June 1976.

EMPLOYEE TRANSPORTATION

In fiscal year 1975 TVA had several programs underway to encourage its employees to conserve energy through mass transit. Two of these programs involve van pooling and mass transportation demonstration.

TVA's van pool program is a nonprofit, cooperative venture between TVA and the TVA employee credit union in Knoxville, Tennessee, to provide transportation to and from work for employees who live in outlying areas not served by conventional mass transit systems. In June 1974 the credit union leased six 12-passenger vans from a private corporation and formed a committee to manage the van pool operations. Passengers are charged a fare ranging from \$20 to \$28 a month, and the program is basically self-financing. TVA paid initial start-up costs and provides limited administrative services. Thirty vans are to be added to the fleet in fiscal year 1976 and will be used primarily to transport TVA employees to and from construction sites and to establish a van pooling program for TVA employees in Chattanooga, Tennessee.

TVA also has a 2-year demonstration project to encourage employees to conserve energy through mass transportation. TVA provides financial assistance in the form of subsidized fares for bus and van pool riders and free parking for car pools, handicapped employees, and motorcycle riders. According to TVA, the demonstration has assisted the local municipally owned transit company and two private bus lines, and has significantly increased ride-sharing among TVA employees. TVA estimates that the effort will conserve about 400,000 gallons of fuel in calendar year 1975.

OPERATION TOWNLIFT

TVA's operation townlift program, initiated in 1963, is designed to improve the quality of urban life in small towns and cities in rural areas of the Tennessee Valley. According to TVA, smaller communities are often confronted with many problems related to rapid urbanization involving such things as traffic regulation, parking, industrial and commercial development, housing, and recreation. The operation townlift program is designed to help smaller communities adjust to rapid urbanization.

approach whereby economists, city planners, architects, and engineers pool their expertise to develop preliminary plans for community improvement.

Typically, in the first phase of technical planning, an economic analysis is made to identify the strengths and weaknesses of the community's overall economy. TVA planners then work with State or regional planning commissions to develop a concept plan that is consistent with the community's overall economic development. Depending on local needs, the community may receive an economic report, a planning report, and sketches showing the impact of adopting certain recommendations. As of June 1975, TVA had prepared plans for 194 communities, was working on plans for about 30 communities, and had 20 requests pending.

CHAPTER 5

INTERNAL AUDITING

TVA's auditing branch is in the division of finance and consists of an internal audit section and a voucher examining section. The branch makes interim and yearend audits of TVA's financial transactions, accounts, and reports, including evaluations of internal control; reviews contractor's financial records relating to work performed or services provided to TVA under cost-reimbursable contracts; examines and certifies for payment vouchers for materials, services, and travel; and reviews the administration of travel regulations. A distributor accounting section, also in the division of finance, is responsible for review and appraisal of the financial operations of the 160 distributors of TVA power.

INTERNAL AUDITS

TVA's internal audit staff includes a section supervisor, three audit supervisors, and 14 auditors. The staff's average experience with TVA is about 7 years, and six of the staff are certified public accountants. In fiscal year 1975, the staff's audit effort was distributed as follows.

	<u>Staff-days</u>	<u>Percentages</u>
Interim work	1,860	57
Yearend audits	804	24
Contract/special audits	<u>611</u>	<u>19</u>
	<u>3,275</u>	<u>100</u>

Interim audits are made of nine separate accounting functions on an unannounced, irregular basis and encompass the interval since the last audit of the function. Yearend audits are performed in July and include tests and verification of accounting records and data supporting TVA's annual financial statements.

The chief of the auditing branch addresses his audit reports to the comptroller and a copy is furnished to the manager of the accounting office involved. The manager is required to furnish a written reply to the comptroller within 90 days. The internal audit staff performs followup work during the next scheduled audit to determine whether satisfactory corrective action has been taken.

Contract audits, performed semiannually or annually, are made to determine compliance with contract terms and whether contractor claims for payment are proper. A report

on each audit is addressed to the comptroller, and a copy is furnished to the division or office responsible for administering the contract. In fiscal years 1974 and 1975, TVA saved \$431,800 and \$884,700, respectively, as a result of price adjustments recommended by the audit staff.

VOUCHER AUDITS

The voucher examining section consists of a section supervisor, an accounting staff officer, and 11 voucher examining officers. The section examines and certifies all vouchers of certain amounts and purposes before the vouchers are paid. Other vouchers are certified by the section or by the accounting offices and are audited by the section before or after payment, depending on the amounts involved, using statistical sampling and other methods. The audits include verification of rates, prices, and discounts shown on the vouchers and compliance with applicable laws, policies, procedures, and legal opinions of TVA's general counsel.

In fiscal years 1974 and 1975, adjustments to vouchers examined by the section saved TVA about \$1.8 million and \$1 million, respectively.

DISTRIBUTOR AUDITS

TVA has 11 field accountants and a section supervisor responsible for onsite, periodic reviews and appraisals of the financial activities of TVA's 160 power distributors. The average audit experience of the staff is about 9 years, and five are certified public accountants.

Each field accountant contacts about 18 to 20 distributors each month and normally spends about 1 day at a distributor. The accountants implement a portion of a standard program during each visit, and about 2 years is required to complete the entire program. Their work is concerned primarily with an appraisal of the distributor's accounting system, compliance with the terms of the contract between TVA and the distributor, and verification of the distributor's monthly and annual reports. The financial statements submitted to TVA by each distributor are also audited by a firm of certified public accountants.

CHAPTER 6
SCOPE OF EXAMINATION

AND

OPINION ON FINANCIAL STATEMENTS

Our examination of TVA's balance sheet as of June 30, 1975 and 1974, and the related statements of power and non-power programs and of changes in financial position for the years then ended (exhibits I through IV) was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As provided by section 15d(c) of the TVA Act, TVA employs a firm of certified public accountants to audit its accounts and financial statements for each fiscal year, to facilitate its issuance and sale of revenue bonds. This audit does not take the place of the audit required by us under the Government Corporation Control Act. As a part of the examination, we observed and tested the firm's audit work, and our satisfaction with its quality and scope enabled a substantial reduction in the extent of our own examination.

In our opinion the financial statements (exhibits I through IV) present fairly TVA's financial position at June 30, 1975 and 1974, and the results of its operations and the changes in the financial position of its programs for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

The supplemental information appearing in schedules A to F which has been subjected to audit procedures applied in the examination of the basic financial statements is, in our opinion, fairly stated in relation to the basic financial statements taken as a whole.

EXHIBITS

EXHIBIT I

TENNESSEE VALLEY AUTHORITY

(A CORPORATION WHOLLY OWNED BY THE UNITED STATES OF AMERICA)

BALANCE SHEETS JUNE 30 1975 AND 1974

BEST DOCUMENT AVAILABLE

A S S E T S

Power program		All programs	
1975	1974	1975	1974

(Thousands)

PROPERTY, PLANT, AND EQUIPMENT,
substantially all at original cost

Completed plant; schedule A				
Multipurpose dams; note 1	\$ 491,054	\$ 489,745	\$1,017,155	\$1,015,509
Single-purpose dams	66,115	65,869	66,115	65,869
Steam production plants	2,158,152	2,137,260	2,158,152	2,137,260
Nuclear production plants	512,653	-	512,653	-
Other electric plant	1,550,672	1,369,060	1,550,672	1,369,060
Other plant	-	-	175,338	173,541
	<u>4,778,646</u>	<u>4,061,934</u>	<u>5,480,085</u>	<u>4,761,239</u>
Less accumulated depreciation and depletion; note 2	<u>1,344,468</u>	<u>1,242,414</u>	<u>1,490,074</u>	<u>1,380,806</u>
Completed plant, net	<u>3,434,178</u>	<u>2,819,520</u>	<u>3,990,011</u>	<u>3,380,433</u>
Construction and investigations in progress; schedule B and note 3	<u>1,714,179</u>	<u>1,551,961</u>	<u>1,835,750</u>	<u>1,635,750</u>
Nuclear fuel	183,835	133,345	183,835	133,345
Less accumulated provision for amortization; note 2	<u>14,758</u>	<u>3,402</u>	<u>14,758</u>	<u>3,402</u>
Nuclear fuel, net	<u>169,077</u>	<u>129,943</u>	<u>169,077</u>	<u>129,943</u>
Total property, plant, and equipment	<u>5,317,434</u>	<u>4,501,424</u>	<u>5,994,838</u>	<u>5,146,126</u>

CURRENT ASSETS

Cash	153,601	82,723	194,933	111,187
Accounts receivable	129,519	94,437	137,662	104,358
Inventories, principally at average cost	<u>273,239</u>	<u>128,681</u>	<u>289,077</u>	<u>136,118</u>
Total current assets	<u>556,359</u>	<u>305,841</u>	<u>621,672</u>	<u>351,663</u>

DEFERRED CHARGES

Unamortized debt expense; note 2	823	891	833	891
Other	<u>2,158</u>	<u>552</u>	<u>2,198</u>	<u>552</u>
Total deferred charges	<u>3,031</u>	<u>1,443</u>	<u>3,031</u>	<u>1,443</u>
Total assets	<u>\$5,876,824</u>	<u>\$4,808,708</u>	<u>\$6,619,541</u>	<u>\$5,499,232</u>

Notes 1 through 8 following the exhibits are an integral part of the financial statements.

Product

L I A B I L I T I E S

	Power program		All programs	
	1975	1974	1975	1974
	(Thousands)			
PROPRIETARY CAPITAL				
Appropriation investment; note 4				
Total congressional appropriations	\$1,383,590	\$1,383,467	\$2,760,900	\$2,683,500
Transfers of property from other				
Federal agencies	<u>22,269</u>	<u>21,840</u>	<u>54,867</u>	<u>54,100</u>
	<u>1,405,859</u>	<u>1,405,307</u>	<u>2,815,767</u>	<u>2,737,600</u>
Less repayments to General Fund of				
the U.S. Treasury; note 5	<u>410,059</u>	<u>390,059</u>	<u>451,713</u>	<u>431,686</u>
Appropriation investment	<u>995,800</u>	<u>1,015,248</u>	<u>2,364,054</u>	<u>2,305,914</u>
Retained earnings reinvested in the				
power program; exhibit II	898,407	866,418	898,407	866,418
Accumulated net expense of nonpower				
programs; exhibit III	<u>-</u>	<u>-</u>	<u>659,233*</u>	<u>624,025*</u>
Total proprietary capital	<u>1,894,207</u>	<u>1,881,666</u>	<u>2,603,228</u>	<u>2,548,307</u>
LONG-TERM DEBT				
Principal; note 6	2,875,000	2,125,000	2,875,000	2,125,000
Unamortized discount* and premium,				
net; note 2	<u>8,130*</u>	<u>8,604*</u>	<u>8,130*</u>	<u>8,604*</u>
Total long-term debt	<u>2,866,870</u>	<u>2,116,396</u>	<u>2,866,870</u>	<u>2,116,396</u>
SHORT-TERM NOTES				
U.S. Treasury; note 6	150,000	100,000	150,000	100,000
Other; note 6	635,000	570,000	635,000	570,000
Unamortized discount; note 2	<u>-</u>	<u>13,901*</u>	<u>-</u>	<u>13,901*</u>
Total short-term notes	<u>785,000</u>	<u>656,099</u>	<u>785,000</u>	<u>656,099</u>
OTHER CURRENT LIABILITIES				
Accounts payable	268,202	112,295	286,880	122,429
Employees' accrued leave	14,189	13,431	26,317	24,388
Payrolls accrued	6,960	6,738	9,850	9,530
Interest accrued	<u>41,396</u>	<u>22,083</u>	<u>41,396</u>	<u>22,083</u>
Total other current liabilities	<u>330,747</u>	<u>154,547</u>	<u>364,443</u>	<u>178,430</u>
COMMITMENTS; note 3				
Total liabilities	<u>\$5,876,824</u>	<u>\$4,808,708</u>	<u>\$6,619,541</u>	<u>\$5,499,232</u>

EXHIBIT II

TENNESSEE VALLEY AUTHORITY

POWER PROGRAM

NET INCOME AND RETAINED EARNINGS

FOR THE YEARS ENDED JUNE 30, 1975 AND 1974

	1975		1974	
	kWh	Amount	kWh	Amount
	(Thousands)			
OPERATING REVENUES				
Sales of electric energy				
Municipalities and cooperatives	64,468,095	\$ 737,203	64,182,511	\$556,166
Federal agencies	19,389,244	182,523	17,388,119	121,552
Industries	21,822,437	227,637	23,790,067	179,767
Electric utilities	115,803	1,541	122,191	1,166
Total outside sales	105,795,579	1,148,904	105,482,888	858,651
Interdivisional	637,607	6,663	661,841	4,992
Total sales of electric energy	106,433,186	1,155,567	106,144,729	863,643
Rents		20,200		20,153
Discounts and penalties		293		352*
Other miscellaneous revenues		231		182
Total operating revenues		1,176,291		883,626
OPERATING EXPENSES; schedule C				
Production				
Fuel		455,384		332,339
Power purchased and interchanged, net		135,320		17,337
Other		160,047		144,480
Transmission		22,216		20,847
Customer accounts		534		494
Demonstration of power use		1,277		1,283
Administrative and general		34,004		29,907
Payments in lieu of taxes		36,847		31,118
Social security taxes		5,187		4,611
Provision for depreciation		110,322		97,083
Total operating expenses		961,138		679,499
Operating income		215,153		204,127
OTHER INCOME AND DEDUCTIONS				
Interest income		63		-
Allowance for funds used (construction and nuclear fuel); note 2		117,353		85,992
Other, net		232*		581*
Total other income and deductions		117,184		85,411
Income before interest charges		332,337		289,538
INTEREST CHARGES				
Interest on long-term debt		183,626		149,178
Other interest expense; note 2		44,802		33,787
Amortization of long-term debt discount, expense, and premium, net; note 2		548		419
Total interest charges		228,976		183,384
NET INCOME		103,361		106,154
Payment of return on appropriation investment; note 5		71,372		63,422
Increase in retained earnings reinvested		31,989		42,732
Retained earnings reinvested at beginning of period		866,418		823,686
Retained earnings reinvested at end of period		\$ 898,407		\$866,418

Notes 1 through 8 following the exhibits are an integral part of the financial statements.

*Deduct

EXHIBIT III

TENNESSEE VALLEY AUTHORITY
 NONPOWER PROGRAMS
 NET EXPENSE AND ACCUMULATED NET EXPENSE
 FOR THE YEARS ENDED JUNE 30, 1975 AND 1974

	1975	1974
	(Thousands)	
WATER RESOURCES DEVELOPMENT		
Navigation operations		
Studies and investigations	\$ 1,299	\$ 1,047
Operation and maintenance of facilities	5,142	5,187
Total expense of navigation operations	<u>6,441</u>	<u>6,234</u>
Flood control operations		
Studies and investigations	863	894
Operation and maintenance of facilities	3,884	4,194
Local flood control improvements	1,144	441
Total expense of flood control operations	<u>5,891</u>	<u>5,529</u>
Recreation development		
Recreation development	743	665
Operation and maintenance of facilities	1,792	1,846
Total expense of recreation development	<u>2,535</u>	<u>2,511</u>
Regional water quality management	1,329	1,546
Fisheries and waterfowl resources development	629	540
Preliminary surveys and engineering	187	863
Total expense of water resources development	<u>17,012</u>	<u>17,223</u>
FERTILIZER AND MUNITIONS DEVELOPMENT		
Developmental production		
Cost of products distributed	37,241	26,336
General expenses		
Adjustment on retirements of manufacturing plant and equipment, net	115*	1,004
Gain on sale of phosphate reserves, net	317*	99*
Administrative and general	560	525
Other	392	638
Total general expenses	<u>520</u>	<u>2,068</u>
Total production expense	<u>37,761</u>	<u>28,404</u>
Less transfers and sales of products		
Transfers to TVA programs, at market prices		
Fertilizer industry demonstrations	37,660	22,475
Farm test demonstrations	645	431
Agricultural development	541	422
Other	152	95
	<u>38,998</u>	<u>23,423</u>
Direct sales	1,313	431
Total transfers and sales	<u>40,311</u>	<u>23,854</u>
Income* or expense, net, of developmental production	<u>2,550*</u>	<u>4,550</u>
Fertilizer introduction		
Fertilizer industry demonstrations		
Fertilizers used	37,660	22,475
Educational distribution expense	1,470	1,392
	<u>39,130</u>	<u>23,867</u>
Less industry payments for fertilizer	<u>37,136</u>	<u>22,057</u>
	<u>1,994</u>	<u>1,810</u>

*Deduct

EXHIBIT III

TENNESSEE VALLEY AUTHORITY

NONPOWER PROGRAMS

NET EXPENSE AND ACCUMULATED NET EXPENSE

FOR THE YEARS ENDED JUNE 30, 1975 AND 1974

	<u>1975</u>	<u>1974</u>
	(Thousands)	
FERTILIZER AND MUNITIONS DEVELOPMENT - continued		
Fertilizer introduction - continued		
Farm test demonstrations outside the Valley		
Fertilizers used	\$ 645	\$ 431
Planning and supervision	692	661
	<u>1,337</u>	<u>1,092</u>
Less farmer payments for fertilizer	555	283
	<u>782</u>	<u>809</u>
Net expense of fertilizer introduction	<u>2,776</u>	<u>2,619</u>
Research and development	6,409	5,650
Net expense of fertilizer and munitions development	<u>6,635</u>	<u>12,819</u>
GENERAL RESOURCES DEVELOPMENT		
Agricultural projects		
Agricultural resource development		
Fertilizers used	541	416
Planning and supervision	918	946
	<u>1,459</u>	<u>1,362</u>
Less farmer payments for fertilizer	456	356
	<u>1,003</u>	<u>1,006</u>
Development investigations and general expenses	798	604
Net expense of agricultural projects	<u>1,801</u>	<u>1,610</u>
Forest and wild land resources development	1,514	1,406
Strip mine reclamation demonstrations	313	116
Tributary area development	1,991	2,209
Interagency health services demonstrations	160	120
Regional economic studies	601	636
Townlift community improvement	788	744
Cooperative training demonstrations	771	731
Minerals resources projects	287	269
Environmental quality projects	319	492
Net expense of general resources development	<u>8,545</u>	<u>8,333</u>
LAND BETWEEN THE LAKES OPERATIONS	<u>2,500</u>	<u>2,498</u>
VALLEY MAPPING AND REMOTE SENSING	<u>454</u>	<u>482</u>
OTHER EXPENSE, NET	<u>62</u>	<u>134</u>
NET EXPENSE; schedule D	35,208	41,489
Accumulated net expense at beginning of period	<u>624,025</u>	<u>582,536</u>
Accumulated net expense at end of period	<u>\$659,233</u>	<u>\$624,025</u>

Notes 1 through 8 following the exhibits are an integral part of the financial statements.

EXHIBIT IV

TENNESSEE VALLEY AUTHORITY
CHANGES IN FINANCIAL POSITION
FOR THE YEARS ENDED JUNE 30, 1975 AND 1974

	Power program		All programs	
	1975	1974	1975	1974
	(Thousands)			
SOURCE OF FUNDS				
Program sources				
Net power income; exhibit II	\$ 103,361	\$ 106,154	\$ 103,361	\$ 106,154
Add items not requiring funds; note a	1,059	12,404	1,059	12,404
Funds from power operations	104,420	118,558	104,420	118,558
Sale of power facilities	1,375	1,904	1,375	1,904
Funds from power program; note b	105,795	120,462	105,795	120,462
Net expense of nonpower programs; exhibit III			35,208*	41,489*
Add items not requiring funds; note a			7,247	8,283
Funds used in nonpower operations			27,961*	33,206*
Sale of nonpower facilities			1,167	761
Funds used in nonpower programs			26,794*	32,445*
Debt sources				
Long-term bonds				
Issues	800,000	450,000	800,000	450,000
Redemptions	50,000*	100,000*	50,000*	100,000*
Short-term notes				
Issues	2,070,000	1,375,000	2,070,000	1,375,000
Redemptions	1,955,000*	1,285,000*	1,955,000*	1,285,000*
Total debt sources	865,000	440,000	865,000	440,000
Other sources				
Congressional appropriations	139	173	77,400	45,676
Property transfers	429	323	767	399
Contributions in aid of construction (reclassified in 1974 to property, plant, and equipment)	-	901*	-	901*
Total source of funds	\$ 971,363	\$ 560,057	\$1,022,168	\$ 573,191
DISPOSITION OF FUNDS				
Expended for plant and equipment, excluding allowance for funds used	\$ 826,831	\$ 447,788	\$ 869,681	\$ 478,795
Less:				
Depreciation and amortization of nuclear fuel charged to construction and clearing accounts	6,202	4,925	8,312	7,190
Cost of removing retired facilities and salvage from retained materials	2,764	3,586	2,404	3,631
	817,865	439,277	858,965	467,974
Payments to U.S. Treasury; note 5				
Return on appropriation investment	71,372	63,422	71,372	63,422
Repayment of appropriation investment	20,000	20,000	20,027	20,012
	91,372	83,422	91,399	83,434
Unamortized debt discount and expense and other deferred charges				
Mine and mill development cost	1,693	-	1,693	-
Long-term discount	-	2,411	-	2,411
Short-term discount	13,901*	6,771	13,901*	6,771
Debt expense	16	250	16	250
	12,192*	9,432	12,192*	9,432
Changes in working capital (increase or decrease*)				
Cash	70,878	19,367	83,746	1,105
Accounts receivable	35,082	23,104	33,304	25,117
Inventories	144,558	12,091*	152,959	10,355*
	250,518	30,380	270,009	15,867
Less other current liabilities	176,200	2,454	186,013	3,516
	74,318	27,926	83,996	12,351
Total disposition of funds	\$ 971,363	\$ 560,057	\$1,022,168	\$ 573,191

*Deduct

EXHIBIT IV

TENNESSEE VALLEY AUTHORITY CHANGES IN FINANCIAL POSITION FOR THE YEARS ENDED JUNE 30, 1975 AND 1974

NOTES:

a. Items not requiring funds:

	Power		Nonpower	
	1975	1974	1975	1974
	(Thousands)			
Provisions for depreciation	\$110,322	\$97,083	\$7,669	\$7,370
Provisions for depletion	210	266	10	8
Amortization of nuclear fuel charged to operations	7,053	-	-	-
Loss or gain* on retirements and disposals of property, plant, and equipment, net	232	581	432*	905
Amortization of long-term debt discount, premium, and expense; and deferred charges	595	466	-	-
Allowance for funds used (construction and nuclear fuel)	<u>117,353*</u>	<u>85,992*</u>	<u>-</u>	<u>-</u>
	<u>\$ 1,059</u>	<u>\$12,404</u>	<u>\$7,247</u>	<u>\$8,283</u>

b. Net power proceeds (see note 6) may be derived as follows:

	Year ended June 30	
	1975	1974
	(Thousands)	
Funds from power program	\$105,795	\$120,462
Add back interest charges	<u>228,428</u>	<u>182,965</u>
Net power proceeds	<u>\$334,223</u>	<u>\$303,427</u>

Notes 1 through 8 following the exhibits are an integral part of the financial statements.

*Deduct

TENNESSEE VALLEY AUTHORITY **NOTES TO FINANCIAL STATEMENTS**

1. Allocation of cost of multipurpose projects--Section 14 of the TVA Act requires TVA's Board of Directors to allocate the cost of completed multipurpose projects, subject to the approval of the President of the United States. The cost of facilities installed exclusively for a single purpose is assigned directly to that purpose; the cost of multiple-use facilities is allocated among the various purposes served.

The total investment of \$1,017,155,000 in completed multipurpose dams at June 30, 1975, is classified as follows:

	Direct	Investment Multiple-use (Thousands)	Total
Power	\$315,606	\$177,448	\$ 491,054
Navigation	151,802	137,165	288,967
Flood control	59,657	135,221	194,878
Recreation	267	24,427	24,694
Tributary area development	20	17,542	17,562
Total	\$525,352	\$491,803	\$1,017,155

2. Summary of significant accounting policies--Power accounts are kept in accordance with the uniform system prescribed for electric utilities by the Federal Power Commission.

Plant additions and retirements--Additions to plant are recorded at cost, which includes material, labor, overhead, and allowance for funds used. The costs of generation including amortization of nuclear fuel, less credit for the fair value of energy generated during preliminary operations prior to commercial acceptance, are also included in the recorded cost of steam and nuclear generating plants. Except for chemical plant, plant retirements (including original cost and removal cost less salvage) are charged against appropriate accumulated depreciation accounts. Because of the experimental nature of fertilizer and munitions development, losses on early retirement of chemical plant are included in current year operations.

Depreciation and depletion--Straight-line depreciation is provided for substantially on a composite basis. Rates of depreciation are derived from engineering studies of useful life and are reviewed each year. Depletion of coal land and land rights and phosphate land and mineral rights is provided on a unit of production basis.

Allowance for funds used--The practice of capitalizing an allowance for funds used during construction and during the fabrication of nuclear fuels is followed in the power program. The rate is established at the beginning of each 6-month period on the basis of the cost of borrowings during the preceding 12 months. Rates used were 8.5 percent for each of the two six-month periods during 1975 and 6.5 percent and 7.5 percent, respectively, for the two six-month periods during 1974.

Repairs and maintenance--The cost of current repairs and minor replacements is charged to appropriate operating expense and clearing accounts, and the cost of renewals and betterments is capitalized.

Nuclear fuel amortization--The amortization of nuclear fuel is provided on a unit of production basis. Rates are established to amortize the costs over the useful life.

Operating revenues and energy costs--Revenues from the sale of electric energy, including amounts resulting from the application of an adjustment addendum providing for monthly billing charges to reflect increases or decreases in fuel and purchased power costs, are recorded only when billed. Costs of fuel consumed and of purchased power are reflected in operating expenses as incurred. About \$3.5 million of these costs recorded in fiscal year 1974 were used in calculating the adjustment to power billings for August 1974; and about \$8.8 million of these costs recorded in fiscal year 1975 were used in calculating the adjustment to power billings for July and August 1975.

Borrowing expenses--Expenses, discounts, and premiums on power borrowings are amortized on a straight-line basis over the term of the related securities. Amortization of discount on short-term notes is charged to other interest expense.

Research and development--Research and development costs are expensed as incurred (approximately \$16,475,000 in 1975 and \$13,427,000 in 1974) except for those costs which relate to specific power program capital projects.

3. Construction of major projects, commitments, and rental expenses--During fiscal year 1976 TVA contemplates expenditures of \$981,828,000 for major power projects and \$59,378,000 for multipurpose and nonpower projects. Substantial commitments have been incurred for these projects.

On June 22, 1972, the TVA Board of Directors approved a Utility Contribution Agreement with Breeder Reactor Corporation (BRC), a District of Columbia nonprofit corporation. The agreement obligates TVA to pay to Breeder Reactor Corporation the sum of \$21.7 million over a 10-year period with equal annual payments beginning December 31, 1972, and ending December 31, 1981. The payment is on behalf of TVA and its distributors in support of the Nation's first commercial-scale liquid metal fast breeder reactor demonstration plant project. At June 30, 1975, the remaining commitment was \$14,105,000.

The total rentals charged to power operating expenses and other operating clearing accounts for the years ending June 30, 1975 and 1974, amounted to approximately \$11,986,000 and \$11,931,000, respectively. At June 30, 1975, the aggregate minimum gross rental commitments of TVA under all noncancelable leases for the periods shown are as follows:

Year	Amount (Thousands)	Years	Amount (Thousands)
1976	\$9,829	1981-85	\$4,210
1977	9,185	1986-90	1,776
1978	8,437	1991-95	30
1979	8,200	Thereafter	325
1980	8,230		

EXHIBIT IV

TENNESSEE VALLEY AUTHORITY

NOTES - CONTINUED

Minimum gross rental commitments include rentals paid under agreements with the City of Memphis, Tennessee, which provide that (1) TVA sells to the City all the power and energy requirements of its electric distribution system, and (2) the City leases to TVA the Thomas H. Allen steam-electric generating plant with an installed capacity of 990,000 kilowatts. Each agreement is for a term of 20 years, beginning January 1, 1965. The lease agreement provides for annual rental payments of \$6,000,000 and grants TVA an option to buy the plant for \$2,000,000 at the end of the lease term.

4. Appropriation investment--Changes in appropriation investment during the years ended June 30, 1975 and 1974, were as follows:

	<u>Power program</u>		<u>All programs</u>	
	<u>1975</u>	<u>1974</u>	<u>1975</u>	<u>1974</u>
	(Thousands)			
Congressional appropriations, net	\$ 123	\$ 135	\$ 77,400	\$ 45,676
Transfers of property from other Federal agencies	429	323	767	399
	<u>552</u>	<u>458</u>	<u>78,167</u>	<u>46,075</u>
Less repayments to General Fund of the U.S. Treasury	20,000	20,000	20,027	20,012
Increase or decrease* for the period	19,448*	19,542*	58,140	26,063
Balance, beginning of period	<u>1,015,248</u>	<u>1,034,790</u>	<u>2,305,914</u>	<u>2,279,851</u>
Balance, end of period	<u>\$ 995,800</u>	<u>\$1,015,248</u>	<u>\$2,364,054</u>	<u>\$2,305,914</u>

*Deduct

An additional appropriation of \$87,800,000 as of July 1, 1975, is pending action in the Congress.

5. Payments to the U.S. Treasury--Section 15d of the TVA Act requires the payment from net power proceeds of a return on the net appropriation investment in power facilities plus repayments of such investment, beginning with fiscal year 1961. The amount of return payable during each year is based on the appropriation investment as of the beginning of that year and the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date. The repayment schedule calls for payment of not less than \$10 million for each of the first five years (1961-1965), \$15 million for each of the next five years (1966-1970), and \$20 million for each year thereafter until a total of \$1 billion shall have been repaid. The payments required by Section 15d may be deferred under certain circumstances for not more than two years.

Required payments have been made as follows:

	<u>Return</u>	<u>Repayment</u>	<u>Total</u>
	(Thousands)		
Total to June 30, 1974	\$686,410	\$205,000	\$891,410
Year ended June 30, 1975	<u>71,372</u>	<u>20,000</u>	<u>91,372</u>
	<u>\$757,782</u>	<u>\$225,000</u>	<u>\$982,782</u>

For 1976 the required payments will be \$65,056,000 as a return on the appropriation investment at the computed average interest rate of 6.533 percent and \$20,000,000 as a repayment, a total of \$85,056,000.

In addition to the payments from net power proceeds, \$27,000 of nonpower proceeds was paid to the U.S. Treasury in 1975 under the provisions of Section 26 of the TVA Act. This brought the total payments from nonpower proceeds to \$41,653,000.

Prior to 1961, under then existing legislation, TVA paid to the Treasury \$185,059,000 of power proceeds. In addition to the repayments indicated in Exhibit I, \$65,072,000 of bonds sold to the Treasury and Reconstruction Finance Corporation in fiscal years 1959-1961 have been fully repaid from power proceeds. Section 26 of the TVA Act provides for annual payments to the Treasury of any power or nonpower proceeds not needed for the operation of dams and reservoirs, the conduct of the power program, and the manufacture and distribution of fertilizers.

TENNESSEE VALLEY AUTHORITY

NOTES - CONTINUED

6. Borrowing authority--Section 15d of the TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of \$5 billion outstanding at any one time to assist in financing its power program. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payments to the U.S. Treasury and is paid in full. Issues outstanding on June 30, 1975, consist of the following:

	(Thousands)
Long-term debt	
4.40% 1960 Series A, due November 15, 1985	\$ 50,000
4-5/8% 1961 Series A, due July 1, 1986	50,000
4-1/2% 1962 Series A, due February 1, 1987	45,000
5.70% 1967 Series A, due May 15, 1992	70,000
6-3/8% 1967 Series B, due November 1, 1992	60,000
8-1/4% 1969 Series B, due October 15, 1994	100,000
9% 1970 Series A, due March 15, 1995	100,000
9-1/4% 1970 Series B, due June 15, 1995	50,000
7-1/4% 1971 Series A, due July 1, 1976	100,000
7.30% 1971 Series B, due October 1, 1996	150,000
7% 1972 Series A, due January 1, 1997	150,000
7.35% 1972 Series B, due May 1, 1997	150,000
7.35% 1972 Series C, due July 1, 1997	150,000
7.40% 1972 Series D, due October 1, 1997	150,000
7.35% 1973 Series A, due January 1, 1998	100,000
7.35% 1973 Series B, due April 1, 1998	150,000
7-3/4% 1973 Series C, due July 1, 1998	150,000
7.70% 1973 Series D, due October 1, 1998	100,000
8.05% 1974 Series A, due January 1, 1999	100,000
8.10% 1974 Series B, due April 1, 1979	100,000
8.50% 1974 Series C, due October 31, 1979 (FFB)	300,000
8.05% 1975 Series A, due January 31, 1990 (FFB)	200,000
8.70% 1975 Series B, due March 31, 2000 (FFB)	100,000
8.35% 1975 Series C, due May 31, 1988 (FFB)	200,000
Total long-term debt	2,875,000
Short-term notes	
U.S. Treasury	150,000
Federal Financing Bank (FFB)	635,000
Total short-term notes	785,000
	\$3,660,000

An additional bond issue, 8.47 percent 1975 Series D, due July 31, 2000, in the amount of \$200,000,000 was sold to the Federal Financing Bank in July 1975.

7. Retirement plan--TVA has a contributory retirement plan which covers substantially all of its salaried employees. The cost of currently accruing benefits is funded currently, and the prior service cost is being amortized and funded over a period of 31 years from July 1, 1974. The cost of the plan to TVA for the years ended June 30, 1975 and 1974, was \$20,782,000 and \$18,104,000, respectively. The actuarially computed value of vested benefits of the plan as of June 30, 1974, the latest actuarial valuation date, exceeded the total pension fund assets reflected in the actuarial valuation by approximately \$8,846,000. The TVA Retirement System is exempt from the provisions of the Employee Retirement Income Security Act of 1974. However, if such Act were applicable, there would be no significant effect on the cost of currently accruing benefits, the amortization of unfunded prior service cost, or vested benefits.

8. Litigation--On July 5, 1972, the Environmental Defense Fund and other plaintiffs filed suit to enjoin TVA from constructing the Duck River project, consisting of the Normandy and Columbia Dams, on various grounds including alleged failure to comply with the National Environmental Policy Act by, among other things, filing an inadequate environmental impact statement for the project. Following a trial on the NEPA issues, all other issues having been decided in TVA's favor by an earlier court order, the District Court found on March 7, 1974, that the environmental impact statement was deficient in four areas and thereafter enjoined construction of the project effective midnight, March 30, 1974. On TVA's motions the District Court subsequently stayed the injunction through June 29, 1974, to enable work on the project to continue while TVA complied with the law. During the period that the injunction was stayed, TVA prepared and circulated a draft supplement to the environmental impact statement addressing the deficiencies found by the court in its March 7 memorandum. TVA filed a final supplement with the Council on Environmental Quality on June 18, 1974. By order entered on November 6, 1974, the District Court held that TVA has fully complied with NEPA with respect to this project. Plaintiff filed a notice of appeal from the District Court's final order of November 6, 1974, to the United States Court of Appeals for the Sixth Circuit. Counsel for TVA believe that plaintiffs' appeal is without basis and that the revised environmental impact statement complies fully with the National Environmental Policy Act.

In December 1973 TVA filed seven condemnation cases in the United States District Court for the Middle District of Tennessee to acquire the major portion (about 1,100 acres) of an electric generating site which is proposed for the Harts-ville Nuclear Generating Plant. Three additional cases were filed in 1974. The defendants filed answers in which they raised 28 objections and defenses to the taking. In essence, they were that TVA lacks statutory and constitutional authority to acquire the property; that it is not being acquired for a public use; and that the taking is unnecessary, an abuse of discretion, and in violation of the National Environmental Policy Act. By agreement of the parties, a limited order of possession was entered by the court on February 22, 1974, giving TVA the right to proceed with certain preliminary work upon the properties involved. The issue of TVA's right to take the property was pending at the end of the fiscal year. The defendants in these cases have withdrawn all their objections and defenses to the taking and a final judgement has been entered in each case. The judgement in each case, among other things, awards plaintiff full and complete possession of the property involved in these cases and confirms the withdrawal of the objections and defenses raised and the vesting of the fee simple title to such property in plaintiff.

SCHEDULE A

TENNESSEE VALLEY AUTHORITY

COMPLETED PLANT

JUNE 30, 1975

	Assets	Accumulated depreciation and depletion
Power		
Multipurpose dams		
System allocation	\$ 431,050,533	\$ 166,249,680
Project allocations	60,003,605	7,733,702
Single-purpose dams	66,114,927	26,170,935
Steam production plants	2,158,152,335	755,959,352
Nuclear production plants	512,652,580	9,799,979
Other electric plant	1,550,672,019	378,554,299
Total power	<u>4,778,645,999</u>	<u>1,344,467,947</u>
Navigation		
Multipurpose dams		
System allocation	228,733,691	52,248,667
Project allocations	60,233,204	4,813,346
Single-purpose navigation plant	7,063,239	186,453
Total navigation	<u>296,030,134</u>	<u>57,248,466</u>
Flood control		
Multipurpose dams		
System allocation	180,314,216	37,124,652
Project allocations	14,563,610	572,743
Single-purpose flood control plant	2,162,006	133,193
Total flood control	<u>197,039,832</u>	<u>37,830,588</u>
Tributary area development		
Multipurpose dams		
Project allocations	<u>17,561,450</u>	<u>566,915</u>
Recreation and conservation education		
Multipurpose dams		
Project allocations	24,694,528	428,474
Land Between The Lakes	49,581,826	2,802,397
Other recreation plant	1,750,310	128,121
Total recreation and conservation education	<u>76,026,664</u>	<u>3,358,992</u>
Chemical	<u>70,064,923</u>	<u>26,184,149</u>
General	<u>44,715,973</u>	<u>20,417,082</u>
Total	<u>\$5,480,084,975</u>	<u>\$1,490,074,139</u>
Total completed plant		
Multipurpose dams		
System allocation	\$ 840,098,440	\$ 255,622,999
Project allocations	177,056,397	14,115,180
	<u>1,017,154,837</u>	<u>269,738,179</u>
Single-purpose dams	66,114,927	26,170,935
Steam production plants	2,158,152,335	755,959,352
Nuclear production plants	512,652,580	9,799,979
Other electric plant	1,550,672,019	378,554,299
Other plant	175,338,277	49,851,395
Total	<u>\$5,480,084,975</u>	<u>\$1,490,074,139</u>

SCHEDULE B

TENNESSEE VALLEY AUTHORITY
CONSTRUCTION AND INVESTIGATIONS IN PROGRESS
 JUNE 30, 1975

	<u>Power program</u>	<u>All programs</u>
Construction in progress		
Generating facilities		
Browns Ferry Nuclear Plant	\$ 259,168,550	\$ 259,168,550
Sequoyah Nuclear Plant	542,721,247	542,721,247
Watts Bar Nuclear Plant	315,702,418	315,702,418
Bellefonte Nuclear Plant	132,384,129	132,384,129
Proposed Hartsville Nuclear Plant	23,426,611	23,426,611
Nuclear plant 7	2,216,537	2,216,537
Nuclear plant 8	3,094,860	3,094,860
Cumberland Steam Plant	2,100,973	2,100,973
Johnsonville gas turbine units 1-16	1,534,843	1,534,843
Gallatin gas turbine units 1-4	30,539,224	30,539,224
Raccoon Mountain pumped storage project	187,181,476	187,181,476
Total generating facilities	<u>1,500,070,868</u>	<u>1,500,070,868</u>
Transmission lines, substations, and other additions to power facilities	<u>210,143,083</u>	<u>210,143,083</u>
Navigation facilities		<u>281,129</u>
Flood control facilities		<u>378,494</u>
Multipurpose facilities		
Tellico Dam and Reservoir	-	57,141,139
Columbia Dam and Reservoir	-	6,663,978
Normandy Dam and Reservoir	-	27,485,239
Bear Creek water control system	-	14,723,165
Other	310,297	762,691
Total multipurpose facilities	<u>310,297</u>	<u>106,776,212</u>
Chemical plant		<u>3,612,879</u>
Recreation and conservation education facilities		
Land Between The Lakes		6,190,320
Other recreation facilities		453,588
Total recreation and conservation education facilities		<u>6,643,908</u>
General plant		
General construction equipment and materials	-	1,045,332
Other additions to general plant	1,047,561	3,486,414
Total general plant	<u>1,047,561</u>	<u>4,531,746</u>
Total construction in progress	<u>1,711,571,809</u>	<u>1,832,438,319</u>
Investigations for future projects		
Power facilities	2,607,066	2,607,066
Navigation facilities	-	117,903
Flood control facilities	-	587,334
Total investigations for future projects	<u>2,607,066</u>	<u>3,312,303</u>
Total construction and investigations in progress	<u>\$1,714,178,875</u>	<u>\$1,835,750,622</u>

SCHEDULE C

BEST DOCUMENT AVAILABLE

TENNESSEE VALLEY AUTHORITY

DETAILS OF POWER EXPENSE

FOR THE YEAR ENDED JUNE 30, 1975

SUMMARY	Total	Provision for depreciation	Total before depreciation (exhibit II)	Operation		Maintenance	Other production
				Fuel	Other		
Generation							
Multipurpose dams							
Dale	\$ 12,362,862	\$ 5,398,433	\$ 6,964,429	\$ -	\$ 3,710,927	\$ 3,253,562	\$ -
Multiple-use, schedule E	4,554,521	1,230,923	3,323,598	-	2,636,719	684,879	-
Dale-purpose dams	2,473,465	875,124	1,598,341	-	962,806	635,535	-
Cumberland Basin projects; note a	12,551,321	-	12,551,321	-	-	-	12,551,321
Steam plants	594,795,929	60,330,509	534,465,420	435,157,926	39,266,418	60,041,076	-
Nuclear plants	23,537,251	9,801,346	13,735,905	7,109,516	4,587,396	2,038,993	-
Gas turbine plants	16,722,459	2,647,006	14,075,453	13,116,621	154,304	804,528	-
Total generation	666,997,808	80,283,341	586,714,467	455,384,063	51,320,570	67,458,513	12,551,321
Purchased power	90,398,584	-	90,398,584	-	-	-	90,398,584
Interchange power received	59,205,321	-	59,205,321	-	-	-	59,205,321
Interchange power delivered	14,284,286*	-	14,284,286*	-	-	-	14,284,286*
Power purchased and interchanged, net	135,319,619	-	135,319,619	-	-	-	135,319,619
System control and load dispatching	1,808,767	155,333	1,653,434	-	-	-	1,653,434
Power	27,063,003	-	27,063,003	-	-	-	27,063,003
Total production	831,189,197	80,438,674	750,750,523	455,384,063	51,320,570	67,458,513	176,587,377
Transmission	49,900,009	27,683,839	22,216,170	-	13,053,304	9,162,866	-
Customer accounts	533,743	-	533,743	-	533,743	-	-
Contribution of power use	1,277,340	-	1,277,340	-	1,277,340	-	-
Payments in lieu of taxes; note b	36,846,755	-	36,846,755	-	-	-	36,846,755
Social security taxes	5,187,417	-	5,187,417	-	-	-	5,187,417
Administrative and general							
Direct	36,091,505	2,199,607	33,891,898	-	33,479,048	412,850	-
Multiple-use	112,203	-	112,203	-	112,203	-	-
Total operating expense	\$961,138,169	\$110,322,120	\$850,816,049	\$455,384,063	\$99,776,208	\$77,034,229	\$218,621,549

SYSTEM STATISTICS	kWh generated less station use (thousands)	Production expense including depreciation		Installed capacity at June 30, 1975 (kilowatts)	Ratio of average gross generation to installed capacity (percent)
		Total	Per kWh (mills)		
Generation					
Multipurpose dams					
Dale	15,771,944	\$ 12,362,862	.784	2,966,270	61.01
Multiple-use; schedule E	-	4,554,521	.289	-	-
Total multipurpose dams	15,771,944	16,917,383	1.073	2,966,270	61.01
Dale-purpose dams	1,404,119	2,473,465	1.762	245,260	65.92
Cumberland Basin projects; note a	3,380,694	12,551,321	3.713	853,000	45.48
Alcoa plants; note	2,393,359	-	-	423,715	64.60
Total hydro generation	22,950,116	-	-	4,488,245	58.60
Steam plants	71,599,370	594,795,929	8.296	17,749,585	48.73
Nuclear plants	4,662,886	23,537,251	5.048	2,304,000	60.95
Gas turbine plants	506,842	16,722,459	32.993	2,184,800	4.94
Total commercial generation; note d	99,819,214	-	-	26,726,630	49.00
Purchased power	5,270,436	90,398,584	-	-	-
Interchange power received	8,149,964	59,205,321	-	-	-
System control and load dispatching	-	1,808,767	-	-	-
Power; note e	2,766,137	27,063,003	-	-	-
Total system input	116,011,751	-	-	-	-
Delivered under Alcoa agreement	1,718,845*	-	-	-	-
Interchange power delivered	4,738,044*	14,284,286*	-	-	-
Net energy supply	109,554,862	831,189,197	7.587	-	-
Drop and internal uses	6,603*	-	-	-	-
Transmission and transformation losses	3,115,673*	-	-	-	-
Total kWh sales and production expense	106,433,186	\$831,189,197	7.809	-	-

Notes:

- TVA purchases substantially all of the output of eight hydro plants in the Cumberland River Basin. In accordance with memorandums of understanding with the Corps of Engineers, Department of the Army, the Cumberland Basin projects are operated for optimum production of power in conjunction with TVA's power system, subject to flood control, navigation, and other operating requirements of the Army.
- Payments made to states and counties in which power operations are carried out. The basic amount is 5 percent of gross revenues from the sale of power to other than Federal agencies during the preceding year, with the provision of minimum payments under certain circumstances.
- Operation of twelve hydro plants of the Aluminum Company of America is coordinated with the operation of TVA's power plants under an arrangement whereby the storage and release of water from the Alcoa plants are carried out by the company under TVA's direction.
- Installed capacity increased 3,407,600 kilowatts during fiscal year 1975. Additions consisted of the first and second 1,152,000-kilowatt generating units at the Browns Ferry Nuclear Plant, 1,088,000 kilowatts in sixteen gas turbine units at the Johnsonville Hydro Plant, and 15,000 kilowatts from modifications to four generators.
- Wholesale sales included 2,766,137,000 kWh generated during test runs of the first and second units at the Browns Ferry Nuclear Plant. The expenses of the generation, less credit for the fair value of energy delivered to the TVA power system, were charged to production.

SCHEDULE D

TENNESSEE VALLEY AUTHORITY
DETAILS OF NONPOWER NET EXPENSE
FOR THE YEAR ENDED JUNE 30, 1975

	Direct	Multiple-use (schedule E)	Total
WATER RESOURCES DEVELOPMENT			
Navigation operations			
Studies and investigations			
Navigation engineering and investigations	\$1,240,713	\$ -	\$1,240,713
Administrative and general expenses; schedule F	58,482	-	58,482
	<u>1,299,195</u>	<u>-</u>	<u>1,299,195</u>
Operation and maintenance of facilities			
Operation	13,065	1,609,225	1,622,290
Maintenance	38,940	451,748	490,688
Administrative and general expenses	-	71,402	71,402
Provision for depreciation	2,013,329	944,471	2,957,800
	<u>2,065,334</u>	<u>3,076,846</u>	<u>5,142,180</u>
Total expense of navigation operations	<u>\$3,364,529</u>	<u>\$3,076,846</u>	<u>6,441,375</u>
Flood control operations			
Studies and investigations			
System studies and investigations	\$ 325,158	\$ -	325,158
Local flood damage prevention studies	516,382	-	516,382
Administrative and general expenses; schedule F	21,760	-	21,760
	<u>863,300</u>	<u>-</u>	<u>863,300</u>
Operation and maintenance of facilities			
Operation	25,285	1,935,840	1,961,125
Maintenance	-	515,190	515,190
Administrative and general expenses	-	85,002	85,002
Provision for depreciation	390,373	931,860	1,322,233
	<u>415,658</u>	<u>3,467,892</u>	<u>3,883,550</u>
Local flood control improvements	<u>1,143,775</u>	<u>-</u>	<u>1,143,775</u>
Total expense of flood control operations	<u>\$2,422,733</u>	<u>\$3,467,892</u>	<u>5,890,625</u>
Recreation development			
Recreation development	\$ 702,216	\$ -	702,216
Administrative and general expenses; schedule F	40,801	-	40,801
	<u>743,017</u>	<u>-</u>	<u>743,017</u>
Operation and maintenance of facilities			
Operation	-	1,508,953	1,508,953
Maintenance	34,628	4,018	38,646
Administrative and general expenses	-	68,002	68,002
Provision for depreciation	52,551	124,341	176,892
	<u>87,179</u>	<u>1,705,314</u>	<u>1,792,493</u>
Total expense of recreation development	<u>\$ 830,196</u>	<u>\$1,705,314</u>	<u>2,535,510</u>
Regional water quality management			
Regional water quality management			1,242,213
Provision for depreciation			45,128
Administrative and general expenses; schedule F			42,162
Total expense of regional water quality management			<u>1,329,503</u>
Fisheries and waterfowl resources development			
Fisheries resource assessment			168,659
Fisheries resource management and use			254,429
Waterfowl management and use			175,715
Provision for depreciation			12,110
Administrative and general expenses; schedule F			17,680
Total expense of fisheries and waterfowl resources development			<u>628,593</u>

SCHEDULE D

TENNESSEE VALLEY AUTHORITY DETAILS OF NONPOWER NET EXPENSE FOR THE YEAR ENDED JUNE 30, 1975

WATER RESOURCES DEVELOPMENT - continued

Preliminary surveys and engineering		\$ 181,235
Preliminary surveys and engineering		5,440
Administrative and general expenses; schedule F		<u>186,675</u>
Total expense of preliminary surveys and engineering		
Total expense of water resources development		<u>\$17,012,281</u>

FERTILIZER AND MUNITIONS DEVELOPMENT

Developmental production		
Cost of products distributed; note a,		
Materials used		\$16,605,313
Direct manufacturing and shipping expense		20,415,231
Indirect manufacturing and shipping expense		3,098,134
Provision for depreciation and depletion		2,473,978
Recoveries from byproducts and in-process materials		683,806*
In-process inventory changes		52,992*
Finished inventory changes		4,615,360*
Total cost of products distributed		<u>37,240,498</u>
General expenses		
Adjustment on retirements of manufacturing plant and equipment, net		114,792*
Gain on sale of phosphate reserves, net		316,849*
Other general expenses		
Administrative and general; schedule F	\$ 559,859	
Shipping order and field inventory expense	260,281	
Provision for depreciation of idle manufacturing plant and equipment	67,897	
Other, including depreciation of \$11,787*	63,473	951,510
Total general expenses		<u>519,869</u>
Total production expense		<u>37,760,367</u>
Less transfers and sales of products		
Transfers to TVA programs, at market prices		
Fertilizer industry demonstrations		37,659,853
Farm test demonstrations		644,923
Agricultural development		541,130
Other		152,439
Total transfers		<u>38,998,345</u>
Direct sales		1,312,442
Total transfers and sales		<u>40,310,787</u>
Net income* of developmental production		<u>2,550,420*</u>

Fertilizer introduction

Fertilizer industry demonstrations		
Fertilizers used		\$37,659,853
Educational distribution expense	1,383,658	
Administrative and general expenses; schedule F	86,969	1,470,627
		<u>39,130,480</u>
Less industry payments for fertilizer; note b		<u>37,136,070</u>
		<u>1,994,410</u>
Farm test demonstrations outside the Valley		
Fertilizers used		644,923
Planning and supervision	659,496	
Administrative and general expenses; schedule F	32,613	692,109
		<u>1,337,032</u>
Less farmer payments for fertilizer		<u>555,233</u>
		<u>781,799</u>
Net expense of fertilizer introduction		<u>2,776,209</u>

*Deduct

SCHEDULE D

TENNESSEE VALLEY AUTHORITY DETAILS OF NONPOWER NET EXPENSE FOR THE YEAR ENDED JUNE 30, 1975

FERTILIZER AND MUNITIONS DEVELOPMENT - continued

Research and development	
Research and development of products and processes	
Applied research	\$1,117,048
Process engineering	1,307,100
General expenses	964,181
	<u>3,388,329</u>
Research and development of processes for recovery of sulfur	172,642
Basic chemical and agronomic research	2,585,173
Provision for depreciation	100,329
Administrative and general expenses; schedule F	163,066
Total expense of research and development	<u>6,409,539</u>
Net expense of fertilizer and munitions development	<u>\$6,635,328</u>

GENERAL RESOURCES DEVELOPMENT

Agricultural projects	
Valley agricultural resources development	
Fertilizers used	\$ 541,130
Planning and supervision	917,860
	<u>1,458,990</u>
Less farmer payments for fertilizer	455,671
	<u>1,003,319</u>
Special agricultural investigations and technical assistance	\$ 68,202
Agribusiness development	86,356
Program planning and analysis	75,164
High-income agricultural enterprises, including fertilizers used of \$10,747	192,128
Studies of agricultural uses of heated water	156,607
Economic evaluation of livestock waste disposal systems	78,709
Tennessee Valley rural life conferences	73,550
Administrative and general expenses; schedule F	66,585
Net expense of agricultural projects	<u>1,800,620</u>
Forest and wild land resources development	
Forest industry development	360,494
Forest and wildlife management and wildlife use	365,675
Forest and wild land investigations	387,814
Improvement and establishment of wild land vegetation	339,182
Provision for depreciation	12,333
Administrative and general expenses; schedule F	48,961
Total expense of forest and wild land resources development	<u>1,514,459</u>
Strip mine reclamation demonstrations	
Strip mine reclamation demonstrations	308,520
Administrative and general expenses; schedule F	4,080
Total expense of strip mine reclamation demonstrations	<u>312,600</u>
Tributary area development	
Basic investigations	389,284
Development assistance in specific tributary areas	958,841
Local government assistance	337,244
Administrative and general expenses; schedule F	82,963
Multiple-use operating expenses; schedule E	
Operation and maintenance	117,992
Provision for depreciation, including \$194 direct	100,811
Administrative and general expenses	3,401
Total expense of tributary area development	<u>222,204</u>
Total interagency health services demonstrations	<u>1,990,536</u>
Interagency health services demonstrations	
Interagency health services demonstrations	150,412
Administrative and general expenses; schedule F	9,520
Total interagency health services demonstrations	<u>159,932</u>

SCHEDULE D

TENNESSEE VALLEY AUTHORITY DETAILS OF NONPOWER NET EXPENSE FOR THE YEAR ENDED JUNE 30, 1975

GENERAL RESOURCES DEVELOPMENT - continued

Regional economic studies	
Regional economic studies	\$ 568,211
Administrative and general expenses; schedule F	32,641
Total expense of regional economic studies	<u>600,852</u>
Townlift community improvement	
Townlift community improvement	744,703
Administrative and general expenses; schedule F	43,521
Total expense of townlift community improvement	<u>788,224</u>
Cooperative training demonstrations	
Cooperative training demonstrations	723,665
Administrative and general expenses; schedule F	47,602
Total expense of cooperative training demonstrations	<u>771,267</u>
Mineral resources projects	
Mineral resources projects	276,556
Administrative and general expenses; schedule F	10,881
Total expense of mineral resources projects	<u>287,437</u>
Environmental quality projects	
Regional air quality management	131,267
Research on disposal of solid wastes	172,289
Administrative and general expenses; schedule F	14,961
Total expense of environmental quality projects	<u>318,517</u>
Net expense of general resources development	<u>\$ 8,544,444</u>
LAND BETWEEN THE LAKES OPERATIONS	
Land Between The Lakes operations	\$ 2,033,470
Provision for depreciation	405,587
Administrative and general expenses; schedule F	61,200
Total expense of Land Between The Lakes operations	<u>\$ 2,500,257</u>
VALLEY MAPPING AND REMOTE SENSING	
Valley mapping and remote sensing	\$ 424,872
Provision for depreciation	14,994
Administrative and general expenses; schedule F	13,851
Total expense of valley mapping and remote sensing	<u>\$ 453,717</u>
OTHER EXPENSE OR INCOME*	
Emergency preparedness	\$ 11,133
Maintenance of bridges financed by others on TVA dams	71,370
Interest income from receivables	20,395*
Other expense, net	<u>\$ 62,108</u>
NET EXPENSE	<u>\$35,208,135</u>

Notes:

- a. In the discharge of its obligations under Section 5 of the TVA Act, TVA operates plants for the manufacture of products for agricultural and military purposes; conducts research and pilot plant development of new or improved processes for the production of new or existing fertilizers and munitions; and tests the fertilizers produced and demonstrates their effectiveness. Production is carried out on an experimental basis, and costs are consequently affected by the developmental nature of the manufacturing operations. Research on products and processes is not scaled to TVA's production operations. Its scope is determined by opportunities to render service in the public interest; findings are made available to the public through technical publications, answers to correspondence, and discussions with technical visitors to the laboratories and plants. For these reasons, the cost of such research is accounted for under a separate program rather than as a part of production operations.
- b. Sales of fertilizer materials are not on a commercial basis, but are made to organizations collaborating in an educational program aimed at improving the manufacture, distribution, and use of fertilizers.

SCHEDULE E

TENNESSEE VALLEY AUTHORITY
OPERATING EXPENSES OF MULTIPLE-USE FACILITIES
 FOR THE YEAR ENDED JUNE 30, 1975

Expenses

Operation

Water dispatching operations	\$ 1,268,170
Water control investigations	161,290
Investigations and control of reservoir ecology	830,741
Plant protection and services to visitors	1,724,773
Operation and upkeep of dam reservations	1,316,725
Reservoir land management	1,940,008
Development of water resource management methods	248,246
Other expense	<u>303,056</u>

Total operation	7,793,009
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Administrative and general expenses; schedule F	340,010
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Maintenance	1,673,555
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Provision for depreciation	<u>3,332,212</u>
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Total	<u><u>\$13,138,786</u></u>
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Distributed to	<u>Operation</u>	<u>Administrative and general</u>	<u>Maintenance</u>	<u>Depreciation</u>	<u>Total</u>
Power operations	\$2,638,719	\$112,203	\$ 684,879	\$1,230,923	\$ 4,666,724
Navigation operations	1,609,225	71,402	451,748	944,471	3,076,846
Flood control operations	1,935,840	85,002	515,190	931,860	3,467,892
Recreation projects	1,508,953	68,002	4,018	124,341	1,705,314
Tributary area development	<u>100,272</u>	<u>3,401</u>	<u>17,720</u>	<u>100,617</u>	<u>222,010</u>
Total	<u><u>\$7,793,009</u></u>	<u><u>\$340,010</u></u>	<u><u>\$1,673,555</u></u>	<u><u>\$3,332,212</u></u>	<u><u>\$13,138,786</u></u>

SCHEDULE F

TENNESSEE VALLEY AUTHORITY
ADMINISTRATIVE AND GENERAL EXPENSE
FOR THE YEAR ENDED JUNE 30, 1975

Expenses

Board of directors	\$ 266,397
Office of the general manager	340,963
Planning and budget staffs	471,905
Washington office	136,087
Information office, including technical library service	1,295,902
Equal employment opportunity staff	423,121
Division of personnel	3,286,874
Division of finance	2,395,336
Division of law	1,925,903
Division of property and supply	1,354,028
Medical and safety services	1,684,635
Other administrative and general	226,771
Total	<u>\$13,807,922</u>

	Amount	Percent of total
Distributed to		
Construction	\$ 6,248,960	45.27
Recovered through services billed to others at cost	211,187	1.53
Expense of programs		
Power	5,542,167	40.13
Water resources development		
Navigation	58,482	.42
Flood control	21,760	.16
Regional water quality management	42,162	.31
Fisheries and waterfowl resources development	17,680	.13
Preliminary surveys and engineering	5,440	.04
Recreation projects	40,801	.30
Multiple-use operations	340,010	2.46
Fertilizer and munitions development		
Developmental production	559,859	4.05
Fertilizer industry demonstrations	86,969	.63
Farm test demonstrations	32,613	.24
Research and development	163,066	1.18
General resources development		
Agricultural projects	66,585	.48
Forest and wild land resources development	48,961	.35
Strip mine reclamation demonstrations	4,080	.03
Tributary area development	82,963	.60
Interagency health services demonstrations	9,520	.07
Regional economic studies	32,641	.24
Townlift community improvement	43,521	.31
Cooperative training demonstrations	47,602	.34
Mineral resources projects	10,881	.08
Environmental quality projects	14,961	.11
Land Between The Lakes operations	61,200	.44
Valley mapping and remote sensing	13,851	.10
Total	<u>\$13,807,922</u>	<u>100.00</u>

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